



State of Utah

Department of
Environmental Quality

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DIVISION OF AIR QUALITY
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10096

Title V Operating Permit

PERMIT NUMBER: 700030002

DATE OF PERMIT: November 2, 2007

Date of Last Revision: November 2, 2007

This Operating Permit is issued to, and applies to the following:

Name of Permittee:

Sunnyside Cogeneration Associates: Sunnyside
Cogeneration Facility
State Road 123
PO Box 10
Carbon County UT 84520

Permitted Location:

Sunnyside Cogeneration Associates: Sunnyside
Cogeneration Facility
State Road 123
PO Box 10
Carbon County UT 84520

UTM coordinates: 552984 m Easting, 4377786 m Northing
SIC code: 4911 (Electric Services)

UTAH AIR QUALITY BOARD

By:

Prepared By:

M. Cheryl Heying, Executive Secretary

Jennifer He

ENFORCEABLE DATES AND TIMELINES

The following dates or timeframes are referenced in
Section I: General Provisions of this permit.

Annual Certification Due: November 1 of every calendar year that this permit is in force.

Renewal application due: May 2, 2012

Permit expiration date: November 2, 2012

Definition of “prompt”: written notification within 14 days.

ABSTRACT

The Sunnyside Cogeneration Facility is a steam-electric generating power plant located in Sunnyside, Carbon County, Utah (approximately 25 miles southeast of Price). The plant consists of a circulating fluidized bed combustion boiler, an emergency backup diesel fire pump, diesel storage tanks, coal handling equipment, ash handling equipment, and limestone handling equipment. The boiler is fueled by coal refuse from the Sunnyside and Star Point Refuse Piles. The fly/bottom ash generated from the coal combustion is disposed of in an on site landfill and/or for beneficial use. Sunnyside is classified as a major source of air pollution with respect to PM₁₀, sulfur dioxide (SO₂), nitrogen oxide (NO_x) and carbon monoxide (CO) emissions. Sunnyside is subject to 40 CFR 64 and 40 CFR 60, Subpart A, Subpart Kb (40 CFR 60.116b (a) and (b)), Subpart Db (40 CFR 60.40b), and Subpart Y (40 CFR 60.250).

OPERATING PERMIT HISTORY

Permit/Activity	Date Issued	Recorded Changes
Title V renewal application (Project #OPP0100960004)	11/2/2007	Changes: CAM applies to EUs #1 and #2A; the limitation of operation hours on the emergency generator (EU #7) is deleted in accordance with AO DAQE-AN0096021-006; and opacity limit on Unit #1 applies all the time.
Title V administrative amendment by DAQ (Project #OPP0100960003)	5/15/2006	Changes: due to issuance of AO DAQE-AN0096020-06, dated April 18, 2006, for modifying the coal processing system at the plant.
Title V administrative amendment by DAQ (Project #OPP0100960002)	11/1/2002	Changes: due to issuance of AO DAQE-AN0096011-02 dated October 3, 2002, adding a diesel emergency generator
Title V initial application (Project #OPP0100960001)	11/1/2001	

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Issued under authority of Utah Code Ann. Section 19-2-104 and 19-2-109.1, and in accordance with Utah Administrative Code R307-415 Operating Permit Requirements.

All definitions, terms and abbreviations used in this permit conform to those used in Utah Administrative Code R307-101 and R307-415 (Rules), and 40 Code of Federal Regulations (CFR), except as otherwise defined in this permit. Unless noted otherwise, references cited in the permit conditions refer to the Rules.

Where a permit condition in Section I, General Provisions, partially recites or summarizes an applicable rule, the full text of the applicable portion of the rule shall govern interpretations of the requirements of the rule. In the case of a conflict between the Rules and the permit terms and conditions of Section II, Special Provisions, the permit terms and conditions of Section II shall govern except as noted in Provision I.M, Permit Shield.

SECTION I: GENERAL PROVISIONS

I.A Federal Enforcement.

All terms and conditions in this permit, including those provisions designed to limit the potential to emit, are enforceable by the EPA and citizens under the Clean Air Act of 1990 (CAA) except those terms and conditions that are specifically designated as "State Requirements". (R307-415-6b)

I.B Permitted Activity(ies).

Except as provided in R307-415-7b(1), the permittee may not operate except in compliance with this permit. (See also Provision I.E, Application Shield)

I.C Duty to Comply.

I.C.1 The permittee must comply with all conditions of the operating permit. Any permit noncompliance constitutes a violation of the Air Conservation Act and is grounds for any of the following: enforcement action; permit termination; revocation and reissuance; modification; or denial of a permit renewal application. (R307-415-6a(6)(a))

I.C.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (R307-415-6a(6)(b))

I.C.3 The permittee shall furnish to the Executive Secretary, within a reasonable time, any information that the Executive Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Executive Secretary copies of records required to be kept by this permit or, for information claimed to be confidential, the permittee may furnish such records directly to the EPA along with a claim of confidentiality. (R307-415-6a(6)(e))

I.C.4 This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance shall not stay any permit condition, except as provided under R307-415-7f(1) for minor permit modifications. (R307-415-6a(6)(c))

I.D Permit Expiration and Renewal.

I.D.1 This permit is issued for a fixed term of five years and expires on the date shown under "Enforceable Dates and Timelines" at the front of this permit. (R307-415-6a(2))

I.D.2 Application for renewal of this permit is due on or before the date shown under "Enforceable Dates and Timelines" at the front of this permit. An application may be submitted early for any reason. (R307-415-5a(1)(c))

I.D.3 An application for renewal submitted after the due date listed in I.D.2 above shall be accepted for processing, but shall not be considered a timely application and shall not relieve the permittee of any enforcement actions resulting from submitting a late application. (R307-415-5a(5))

I.D.4 Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted consistent with R307-415-7b (see also Provision I.E, Application Shield) and R307-415-5a(1)(c) (see also Provision I.D.2). (R307-415-7c(2))

I.E Application Shield.

If the permittee submits a timely and complete application for renewal, the permittee's failure to have an operating permit will not be a violation of R307-415, until the Executive Secretary takes final action on the permit renewal application. In such case, the terms and conditions of this permit shall remain in force until permit renewal or denial. This protection shall cease to apply if, subsequent to the completeness determination required pursuant to R307-415-7a(3), and as required by R307-415-5a(2), the applicant fails to submit by the deadline specified in writing by the Executive Secretary any additional information identified as being needed to process the application. (R307-415-7b(2))

I.F Severability.

In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force. (R307-415-6a(5))

I.G Permit Fee.

I.G.1 The permittee shall pay an annual emission fee to the Executive Secretary consistent with R307-415-9. (R307-415-6a(7))

I.G.2 The emission fee shall be due on October 1 of each calendar year or 45 days after the source receives notice of the amount of the fee, whichever is later. (R307-415-9(4)(a))

I.H No Property Rights.

This permit does not convey any property rights of any sort, or any exclusive privilege. (R307-415-6a(6)(d))

I.I Revision Exception.

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (R307-415-6a(8))

I.J Inspection and Entry.

I.J.1 Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Executive Secretary or an authorized representative to perform any of the following:

- I.J.1.a Enter upon the permittee's premises where the source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit. (R307-415-6c(2)(a))
- I.J.1.b Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit. (R307-415-6c(2)(b))
- I.J.1.c Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. (R307-415-6c(2)(c))
- I.J.1.d Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements. (R307-415-6c(2)(d))
- I.J.2 Any claims of confidentiality made on the information obtained during an inspection shall be made pursuant to Utah Code Ann. Section 19-1-306. (R307-415-6c(2)(e))

I.K Certification.

Any application form, report, or compliance certification submitted pursuant to this permit shall contain certification as to its truth, accuracy, and completeness, by a responsible official as defined in R307-415-3. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (R307-415-5d)

I.L Compliance Certification.

- I.L.1 Permittee shall submit to the Executive Secretary an annual compliance certification, certifying compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall be submitted no later than the date shown under "Enforceable Dates and Timelines" at the front of this permit, and that date each year following until this permit expires. The certification shall include all the following (permittee may cross-reference this permit or previous reports): (R307-415-6c(5))
- I.L.1.a The identification of each term or condition of this permit that is the basis of the certification;
- I.L.1.b The identification of the methods or other means used by the permittee for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the monitoring and related recordkeeping and reporting requirements in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information;
- I.L.1.c The status of compliance with the terms and conditions of the permit for the period covered by the certification, based on the method or means designated in Provision I.L.1.b. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred; and
- I.L.1.d Such other facts as the Executive Secretary may require to determine the compliance

status.

- I.L.2 The permittee shall also submit all compliance certifications to the EPA, Region VIII, at the following address or to such other address as may be required by the Executive Secretary: (R307-415-6c(5)(d))

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129

I.M Permit Shield.

- I.M.1 Compliance with the provisions of this permit shall be deemed compliance with any applicable requirements as of the date of this permit, provided that:
- I.M.1.a Such applicable requirements are included and are specifically identified in this permit, or (R307-415-6f(1)(a))
- I.M.1.b Those requirements not applicable to the source are specifically identified and listed in this permit. (R307-415-6f(1)(b))
- I.M.2 Nothing in this permit shall alter or affect any of the following:
- I.M.2.a The emergency provisions of Utah Code Ann. Section 19-1-202 and Section 19-2-112, and the provisions of the CAA Section 303. (R307-415-6f(3)(a))
- I.M.2.b The liability of the owner or operator of the source for any violation of applicable requirements under Utah Code Ann. Section 19-2-107(2)(g) and Section 19-2-110 prior to or at the time of issuance of this permit. (R307-415-6f(3)(b))
- I.M.2.c The applicable requirements of the Acid Rain Program, consistent with the CAA Section 408(a). (R307-415-6f(3)(c))
- I.M.2.d The ability of the Executive Secretary to obtain information from the source under Utah Code Ann. Section 19-2-120, and the ability of the EPA to obtain information from the source under the CAA Section 114. (R307-415-6f(3)(d))

I.N Emergency Provision.

- I.N.1 An "emergency" is any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. (R307-415-6g(1))
- I.N.2 An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the affirmative defense is demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
- I.N.2.a An emergency occurred and the permittee can identify the causes of the emergency. (R307-415-6g(3)(a))

- I.N.2.b The permitted facility was at the time being properly operated. (R307-415-6g(3)(b))
- I.N.2.c During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit. (R307-415-6g(3)(c))
- I.N.2.d The permittee submitted notice of the emergency to the Executive Secretary within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirement of Provision I.S.2.c below. (R307-415-6g(3)(d))
- I.N.3 In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. (R307-415-6g(4))
- I.N.4 This emergency provision is in addition to any emergency or upset provision contained in any other section of this permit. (R307-415-6g(5))
- I.O **Operational Flexibility.**
- Operational flexibility is governed by R307-415-7d(1).
- I.P **Off-permit Changes.**
- Off-permit changes are governed by R307-415-7d(2).
- I.Q **Administrative Permit Amendments.**
- Administrative permit amendments are governed by R307-415-7e.
- I.R **Permit Modifications.**
- Permit modifications are governed by R307-415-7f.
- I.S **Records and Reporting.**
- I.S.1 Records.
- I.S.1.a The records of all required monitoring data and support information shall be retained by the permittee for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-charts or appropriate recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. (R307-415-6a(3)(b)(ii))
- I.S.1.b For all monitoring requirements described in Section II, Special Provisions, the source shall record the following information, where applicable: (R307-415-6a(3)(b)(i))
- I.S.1.b.1 The date, place as defined in this permit, and time of sampling or measurement.
- I.S.1.b.2 The date analyses were performed.
- I.S.1.b.3 The company or entity that performed the analyses.
- I.S.1.b.4 The analytical techniques or methods used.

- I.S.1.b.5 The results of such analyses.
- I.S.1.b.6 The operating conditions as existing at the time of sampling or measurement.
- I.S.1.c Additional record keeping requirements, if any, are described in Section II, Special Provisions.
- I.S.2 Reports.
- I.S.2.a Monitoring reports shall be submitted to the Executive Secretary every six months, or more frequently if specified in Section II. All instances of deviation from permit requirements shall be clearly identified in the reports. (R307-415-6a(3)(c)(i))
- I.S.2.b All reports submitted pursuant to Provision I.S.2.a shall be certified by a responsible official in accordance with Provision I.K of this permit. (R307-415-6a(3)(c)(i))
- I.S.2.c The Executive Secretary shall be notified promptly of any deviations from permit requirements including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventative measures taken. Prompt, as used in this condition, shall be defined as written notification within the number of days shown under "Enforceable Dates and Timelines" at the front of this permit.. Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107. (R307-415-6a(3)(c)(ii))
- I.S.3 Notification Addresses.
- I.S.3.a All reports, notifications, or other submissions required by this permit to be submitted to the Executive Secretary are to be sent to the following address or to such other address as may be required by the Executive Secretary:
- Utah Division of Air Quality
P.O. Box 144820
Salt Lake City, UT 84114-4820
Phone: 801-536-4000
- I.S.3.b All reports, notifications or other submissions required by this permit to be submitted to the EPA should be sent to one of the following addresses or to such other address as may be required by the Executive Secretary:
- For annual compliance certifications:
- Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129
- For reports, notifications, or other correspondence related to permit modifications, applications, etc.:
- Environmental Protection Agency, Region VIII
Office of Partnerships & Regulatory Assistance Air & Radiation Program (mail code 8P-AR)

1595 Wynkoop Street
Denver, CO 80202-1129
Phone: 303-312-6440

I.T Reopening for Cause.

I.T.1 A permit shall be reopened and revised under any of the following circumstances:

I.T.1.a New applicable requirements become applicable to the permittee and there is a remaining permit term of three or more years. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the terms and conditions of this permit have been extended pursuant to R307-415-7c(3), application shield. (R307-415-7g(1)(a))

I.T.1.b The Executive Secretary or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (R307-415-7g(1)(c))

I.T.1.c EPA or the Executive Secretary determines that this permit must be revised or revoked to assure compliance with applicable requirements. (R307-415-7g(1)(d))

I.T.1.d Additional applicable requirements are to become effective before the renewal date of this permit and are in conflict with existing permit conditions. (R307-415-7g(1)(e))

I.T.2 Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the Acid Rain Program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into this permit. (R307-415-7g(1)(b))

I.T.3 Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. (R307-415-7g(2))

I.U Inventory Requirements.

An emission inventory shall be submitted in accordance with the procedures of R307-150, Emission Inventories. (R307-150)

I.V Title IV and Other, More Stringent Requirements

Where an applicable requirement is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, Acid Deposition Control, both provisions shall be incorporated into this permit. (R307-415-6a(1)(b))

SECTION II: SPECIAL PROVISIONS

- II.A **Emission Unit(s) Permitted to Discharge Air Contaminants.**
(R307-415-4(3)(a) and R307-415-4(4))
- II.A.1 **Permitted Source**
Source-wide
- II.A.2 **Circulating Fluidized Bed Combustion Boiler (EU#1)**
Rated at 700 MMBtu/hr and fueled by coal, coal refuse or alternative fuels, and fueled by diesel fuel during startup, shutdown, upset condition and flame stabilization. This boiler is equipped with a limestone injection system to the fluidized bed and a baghouse. This boiler is subject to 40 CFR 60, Subpart Db and CAM.
- II.A.3 **Controlled Point Sources (EU#2)**
Crusher, Enclosed Conveyor Transfer Points, Coal Silo Bin Vents, Coal Dust Collectors #1 (Coal Silo Unloading) and #2 (Coal Bunker Unloading) (all of above are subject to NSPS Subpart Y); and Flyash Baghouse, Hydrated Lime Storage Silo, Soda Ash Storage Silo, Ash Unloading Wet Scrubber, and Limestone Bulk Storage.
- II.A.4 **Fugitive Dust Sources (EU#4)**
Coal or Coal Refuse, Mining Operations, Ash Landfill Operations, Unpaved Roads, and Paved Haul Roads.
- II.A.5 **Diesel Engines (EU#5)**
One diesel engine, approximately 201 HP, used to power the emergency backup fire pump, and various portable I/C engines to power air compressors, generators, welders and pumps. No unit-specific applicable requirements.
- II.A.6 **Fuel Oil Storage Tanks (EU#6)**
A 50,000 gallon storage tank used to store backup diesel fuel oil for main boiler startup, shutdown, upset condition and flame stabilization (NSPS Subpart Kb), a 7,200 gallon storage tank used to store diesel fuel, and a 250 gallon storage tank used to store diesel fuel oil for the emergency diesel fire pump.
- II.A.7 **Emergency Generator (EU#7)**
A 500 kW emergency standby diesel generator, used in the event of disruption of normal electrical power and testing/maintenance.
- II.A.8 **Coal Dust Collectors #1 and #2 (EU#2A)**
Coal Silo Unloading Dust Collector and Coal Bunker Unloading Dust Collector. Both units are subject to CAM.
- II.A.9 **Uncontrolled Point Source (EU#3)**
Primary and Secondary Screens, Coal Conveying Operations (NSPS Subpart Y), Coal Receiving Hoppers (NSPS Subpart Y), Bulk Storage of Coal, and Limestone Receiving Hopper.
- II.B **Requirements and Limitations**

The following emission limitations, standards, and operational limitations apply to the permitted facility as indicated:

II.B.1 **Conditions on permitted source (Source-wide)**

II.B.1.a **Condition:**

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any permitted plant equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Authority granted under R307-401-8(2) and 40 CFR 60.11(d); condition originated in DAQE-AN0096021-06]

II.B.1.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.1.a.2 **Recordkeeping:**

Permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.b **Condition:**

Sulfur content of the diesel fuels combusted shall be no greater than 0.85 lb/MMBtu heat input. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0096021-06]

II.B.1.b.1 **Monitoring:**

For each delivery of oil, the permittee shall either:

(a) Determine the fuel sulfur content expressed as lb/MMBtu in accordance with the methods of the American Society for Testing Materials (ASTM) and Equation 1;

(b) Inspect the fuel sulfur content expressed as lb/MMBtu determined by the vendor using methods of the ASTM and Equation 1; or

(c) Inspect documentation provided by the vendor that indirectly demonstrates compliance with this provision.

Equation 1:

Fuel Sulfur Content, lb/MMBtu = [(Weight percent sulfur/100) x Density (lb/gal)] / [(gross heating value (Btu/gal)) x (1 MMBtu/1,000,000 Btu)]

- II.B.1.b.2 **Recordkeeping:**
- Fuel receipt records showing sulfur content of the delivered fuel, gross heating value, and density; or records of all sulfur content testing performed on the delivered fuel shall be maintained in accordance with Provision I.S.1. of this permit.
- II.B.1.b.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.1.c **Condition:**
- Power generated shall be no greater than 506,700 megawatt-hrs per rolling 12-month period. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0096021-06]
- II.B.1.c.1 **Monitoring:**
- The number of megawatt-hours generated shall be monitored continuously by a power meter. No later than the 15th of each month, a new 12-month total shall be calculated using data from the previous 12 calendar months.
- II.B.1.c.2 **Recordkeeping:**
- Records of electrical power production shall be kept on a monthly basis in accordance with Provision I.S.1 of this permit, for all periods of operation.
- II.B.1.c.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.2 **Conditions on Circulating Fluidized Bed Combustion Boiler (EU #1)**
- II.B.2.a **Condition:**
- Visible emissions shall be no greater than 10 percent opacity except for one 6 minute period per hour of not more than 27 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT] and 40 CFR 60.43b, Subpart Db; condition originated in DAQE-AN0096021-06]
- II.B.2.a.1 **Monitoring:**
- The permittee shall calibrate, maintain and operate a continuous opacity monitoring (COM) system for measuring the opacity of emissions discharged to the atmosphere from the main boiler stack in accordance with the requirements of R307-170, Continuous Emission Monitoring Program and 40 CFR 60.48b.
- II.B.2.a.2 **Recordkeeping:**
- Results of opacity observations from the COM shall be recorded and maintained as required in R307-170, 40 CFR 60.49b, and as described in Provision I.S.1 of this permit.

II.B.2.a.3

Reporting:

- (a) The permittee shall submit excess emission reports required by 40 CFR 60.7(c) and (d), Reporting requirements. A data assessment report required by Appendix F, Procedure 1, Section 7 to 40 CFR Part 60 shall be submitted with the excess emission report.
- (b) The permittee shall submit notifications and reports to the Executive Secretary as required by R307-170, Continuous Emission Monitoring Systems Program.
- (c) Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107.
- (d) The reports required in paragraphs a, b, and c above are considered prompt notification of permit deviations required in provision I.S.2.c of this permit if all information required by provision I.S.2.c is included in the report. (origin: 40 CFR 60.7(c), and R307-170)

II.B.2.b

Condition:

Emissions of TSP shall be no greater than 0.025 lbs/MMBtu heat input from the boiler's stack. [Authority granted under R307-401-8(1)(a) [BACT] and 40 CFR 60.43b; condition originated in DAQE-AN0096021-06]

II.B.2.b.1

Monitoring:

- (a) Stack testing to show compliance with the TSP emission limitations shall be performed as specified below:
 - (1) Frequency. Emissions shall be tested every three years based on the date of the most recent stack test. The permittee must test within 12-months of the date of this permit if the most recent stack test is dated back more than 24-months prior to the date of this permit. The source may also be tested at any time if directed by the Executive Secretary.
 - (2) Notification. At least 30 days before the test, the permittee shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The permittee shall attend a pretest conference if determined necessary by the Executive Secretary.
 - (3) Methods. The permittee shall conduct an initial performance test as required under 40 CFR 60.8 using the following procedures and reference methods:
 - (A) Method 3B is used for gas analysis when applying Method 5.
 - (B) Method 5 shall be used to measure the concentration of particulate matter with the following modifications, in accordance with 40 CFR 60.46b:
 - (i) The sampling time for each run is at least 120 minutes and the minimum sampling volume is 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Executive Secretary when necessitated by process variables or other factors.
 - (ii) The temperature of the sample gas in the probe and filter holder is monitored and is maintained at a minimum of 160°C (320°F).
 - (iii) For determination of particulate matter emissions, the oxygen or carbon dioxide sample is obtained simultaneously with each run of Method 5 by traversing the duct at the same sampling location.
 - (iv) The emission rate expressed in pounds per million BTU heat input is determined using:
 - (I) The oxygen or carbon dioxide measurements and particulate matter measurements obtained under this section,
 - (II) The dry basis F factor, and
 - (III) The dry basis emission rate calculation procedure contained in Method 19 (appendix A of 40 CFR 60).
 - (4) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

(b). Opacity shall be used as a performance indicator of the baghouse to provide a reasonable assurance of compliance with the TSP emission limitation as specified below:

(1) Measurement Approach: Opacity is measured directly by a COM installed in the exhaust stack.

(2) Indicator Range:

(A) An excursion is defined as an 8-hour fixed block average stack opacity in excess of 6%. In the future, the permittee should develop a new excursion level during each performance test using the modified method under 60.48a(o)(2)(iii) and (iv) (NSPS Subpart Da). The new value of the opacity excursion level shall be determined by averaging all of the 6-minute average opacity values from the COMS measurements recorded during each of the test run intervals conducted for the performance test, and then adding 2.5 percent opacity to the calculated average opacity value for all of the test runs as per 60.48a(o)(2)(iii). If the new value of the opacity excursion level for all of the test runs is less than 5.0 percent, then the new opacity excursion level shall be set at 5.0 percent (8-hour fixed block average). If the new value of the opacity excursion level for all of the test runs is greater than 6.0 percent, then the new opacity excursion level shall be set at 6.0 percent (8-hour fixed block average).

(B) Excursions trigger an inspection and review of the baghouse performance as indicated by other parameters (to confirm if opacity is valid and to determine the baghouse operating deficiencies), corrective action (to lower stack opacity less than 6%), and a reporting requirement.

(3) Performance Criteria:

(A). Data Representativeness: Measurements made by COM shall provide a direct indicator of the baghouse performance. COM shall be installed and operated in accordance with 40 CFR 60.49b; 40 CFR Part 60, Appendix B, Performance Specification 1; and R307-170.

(B). QA/QC Practices and Criteria: COM shall be operated, calibrated, and maintained to meet 40 CFR 60, Appendix B, Performance Specification 1.

(C). Monitoring Frequency: Opacity shall be monitored continuously with opacity values averaged every minute.

(D). Data Collection Procedure: Opacity data shall be recorded and stored electronically.

(E). Averaging Period: Use continuous opacity data to calculate 6-minute averages and the 6-minute averages to calculate the 8-hour fixed block average opacity.

II.B.2.b.2

Recordkeeping:

In addition to the recordkeeping requirement described in Provision I.S.1 of this permit,

(a) The permittee shall maintain a file of all stack testing and all other information required by permit provision I.S.1 and applicable portions of 40 CFR Part 60, Subparts A and Db recorded in a permanent form suitable for inspection. (40 CFR 60.7(f))

(b) The permittee shall maintain a file of all continuous opacity monitor (COM) measurements, including performance testing measurements, all COM performance evaluations, all COM calibration checks, all COM adjustments and maintenance, and all other information required by applicable portions of 40 CFR Part 60, Subparts A and Db recorded in a permanent form suitable for inspection. (40 CFR 60.7(f))

(c) The permittee shall maintain a file of the occurrence and duration of any excursion, corrective actions taken, and any other supporting information required to be maintained under 40 CFR 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. (40 CFR 64.9(b))

II.B.2.b.3

Reporting:

(a) The monitoring report required in Provision I.S.2 of this permit shall include, at a minimum, the following information, as applicable:

(1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken. (40 CFR 64.9(a)(2)(i))

(2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable). (40 CFR 64.9(a)(2)(ii))

(b) The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status.

II.B.2.c

Condition:

Emissions of SO₂ shall be no greater than 0.42 lbs/MMBtu heat input per 30-day rolling average during normal operations, not including periods of startup, shutdown, maintenance/planned outage, or malfunction. [Authority granted under R307-401-8(1)(a) [BACT] and 40 CFR 60.42b; condition originated in DAQE-AN0096021-06]

II.B.2.c.1

Monitoring:

The permittee shall calibrate, maintain, and operate a continuous emission monitoring systems (CEMS) for measuring sulfur dioxide concentrations. The sulfur dioxide concentration shall be monitored in accordance with the monitoring provisions of 40 CFR 60.47b. The CEM shall be maintained and operated in accordance with R307-170.

- II.B.2.c.2 Recordkeeping:**
- Results of SO₂ monitoring shall be recorded and maintained as required in 40 CFR 60.49b, R307-170 and as described in Provision I.S.1 of this permit.
- II.B.2.c.3 Reporting:**
- (a) The permittee shall submit excess emission reports required by 40 CFR 60.7(c) and (d), Reporting requirements. A data assessment report required by Appendix F, Procedure 1, Section 7 to 40 CFR Part 60 shall be submitted with the excess emission report.
- (b) The permittee shall submit notifications and reports to the Executive Secretary as required by R307-170, Continuous Emission Monitoring Systems Program.
- (c) Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107.d. The reports required in paragraphs a, b, and c above are considered prompt notification of permit deviations required in provision I.S.2.c of this permit if all information required by provision I.S.2.c is included in the report. (origin: 40 CFR 60.7(c), and R307-170)
- II.B.2.d Condition:**
- Emissions of SO₂ shall be no greater than 462 lbs/operating hour based on a 3-hour block average, during normal operations not including periods of startup, shutdown, maintenance/planned outage, or malfunction. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0096021-06]
- II.B.2.d.1 Monitoring:**
- The permittee shall calibrate, maintain, and operate a continuous emission monitoring systems (CEMS) for measuring sulfur dioxide concentrations. The CEM shall be maintained and operated in accordance with R307-170.
- To determine SO₂ mass emission rates (lbs/hr), the permittee shall either install, maintain, calibrate, and operate a continuous stack flow monitoring system or, alternatively, estimate the stack gas flow rate in accordance with the Approved SO₂ Mass Emission Rate Monitoring Plan described in Appendix C of DAQE-AN0096021-06. The entire mass emission rate monitoring system shall meet a 15% Relative Accuracy Test Audit (RATA) performance requirement in accordance with R307-170.
- II.B.2.d.2 Recordkeeping:**
- Results of SO₂ monitoring shall be recorded and maintained as required in R307-170, and as described in Provision I.S.1 of this permit.

II.B.2.d.3

Reporting:

- (a) The permittee shall submit excess emission reports required by 40 CFR 60.7(c) and (d), Reporting requirements. A data assessment report required by Appendix F, Procedure 1, Section 7 to 40 CFR Part 60 shall be submitted with the excess emission report.
- (b) The permittee shall submit notifications and reports to the Executive Secretary as required by R307-170, Continuous Emission Monitoring Systems Program.
- (c) Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107.
- (d) The reports required in paragraphs a, b, and c above are considered prompt notification of permit deviations required in provision I.S.2.c of this permit if all information required by provision I.S.2.c is included in the report. (origin: 40 CFR 60.7(c), and R307-170)

II.B.2.e

Condition:

If the main boiler is fired on fuel classified as coal refuse, the permittee shall limit emissions of SO₂ from the main boiler to no more than 20 percent of the potential SO₂ emission rate (80% reduction rate) and no more than 1.2 lb SO₂ / MMBTU heat input, in accordance with 40 CFR 60.42b(b). SO₂ emissions shall be determined as the arithmetic average of all hourly emission rates for the 30 successive boiler operating days including periods of startup, shutdown or malfunction.

If the main boiler is fired on fuel not classified as coal refuse, the permittee shall limit emissions of SO₂ from the main boiler to 10 percent of the potential SO₂ emission rate (90% reduction rate) and no more than the emission limit (Es) determined according to the following formula, in accordance with 40 CFR 60.42b(a):

$$Es = (Ka Ha + Kb Hb) / (Ha + Hb)$$

where:

Es is the sulfur dioxide emission limit in lb SO₂ / MMBTU heat input

Ka is a constant for coal combustion equal to 1.2 lb SO₂ / MMBTU

Kb is a constant for oil combustion equal to 0.8 lb SO₂ / MMBTU

Ha is the heat input from the combustion of coal in MMBTU

Hb is the heat input from the combustion of oil in MMBTU

SO₂ emissions rates and percent of the potential SO₂ emissions emission rate shall be calculated in accordance with 40 CFR 60.45b(c) and shall be determined as the arithmetic average of all hourly emission rates for the 30 successive boiler operating days including periods of startup, shutdown or malfunction. [Authority granted under 40 CFR 60.45b (g) and (h); condition originated in 40 CFR 60.42b (g) and (h)]

II.B.2.e.1

Monitoring:

The permittee shall calibrate, maintain, and operate a continuous emission monitoring systems (CEMS) for measuring sulfur dioxide concentrations. The sulfur dioxide concentration shall be monitored in accordance with the monitoring provisions of 40 CFR 60.47b. The CEM shall be maintained and operated in accordance with R307-170.

II.B.2.e.2

Recordkeeping:

Results of SO₂ monitoring shall be recorded and maintained as required in 40 CFR 60.49b, R307-170 and as described in Provision I.S.1 of this permit.

II.B.2.e.3

Reporting:

- (a) The permittee shall submit excess emission reports required by 40 CFR 60.7(c) and (d), Reporting requirements. A data assessment report required by Appendix F, Procedure 1, Section 7 to 40 CFR Part 60 shall be submitted with the excess emission report.
- (b) The permittee shall submit notifications and reports to the Executive Secretary as required by R307-170, Continuous Emission Monitoring Systems Program.
- (c) Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107.
- (d) The reports required in paragraphs a, b, and c above are considered prompt notification of permit deviations required in provision I.S.2.c of this permit if all information required by provision I.S.2.c is included in the report. (origin: 40 CFR 60.7(c), and R307-170)

II.B.2.f

Condition:

Emissions of NO_x shall be no greater than 0.25 lbs/MMBtu heat input per 30-day rolling average during normal boiler operation not including periods of startup, shutdown, maintenance/planned outage, or malfunction. [Authority granted under R307-401-8(1)(a) [BACT] and 40 CFR 60.44b, Subpart Db; condition originated in DAQE-AN0096021-06]

II.B.2.f.1

Monitoring:

The permittee shall calibrate, maintain and operate a continuous monitoring system for measuring the emissions of nitrogen oxide (NO_x) discharged to the atmosphere in accordance with the monitoring provisions of 40 CFR 60.46b. The CEM shall be maintained and operated in accordance with R307-170.

II.B.2.f.2

Recordkeeping:

Results of NO_x monitoring shall be recorded and maintained as required in R307-170, 40 CFR 60.49b, and as described in Provision I.S.1 of this permit.

II.B.2.f.3

Reporting:

- (a) The permittee shall submit excess emission reports required by 40 CFR 60.7(c) and (d), Reporting requirements. A data assessment report required by Appendix F, Procedure 1, Section 7 to 40 CFR Part 60 shall be submitted with the excess emission report.
- (b) The permittee shall submit notifications and reports to the Executive Secretary as required by R307-170, Continuous Emission Monitoring Systems Program.
- (c) Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107.
- (d) The reports required in paragraphs a, b, and c above are considered prompt notification of permit deviations required in provision I.S.2.c of this permit if all information required by provision I.S.2.c is included in the report. (origin: 40 CFR 60.7(c), and R307-170)

II.B.2.g Condition:

Emissions of NO_x shall be no greater than 0.6 lbs/MMBtu heat input per 30-day rolling average, including periods of startup, shutdown, maintenance/planned outage, or malfunction. [Authority granted under R307-401-8(1)(a) [BACT] and 40 CFR 60.42b, Subpart Db; condition originated in DAQE-AN0096021-06]

II.B.2.g.1 Monitoring:

The permittee shall calibrate, maintain and operate a continuous monitoring system for measuring the emissions of nitrogen oxide (NO_x) discharged to the atmosphere in accordance with the monitoring provisions of 40 CFR 60.46b. The CEM shall be maintained and operated in accordance with R307-170.

II.B.2.g.2 Recordkeeping:

Results of NO_x monitoring shall be recorded and maintained as required in R307-170, 40 CFR 60.49b, and as described in Provision I.S.1 of this permit.

II.B.2.g.3 Reporting:

- (a) The permittee shall submit excess emission reports required by 40 CFR 60.7(c) and (d), Reporting requirements. A data assessment report required by Appendix F, Procedure 1, Section 7 to 40 CFR Part 60 shall be submitted with the excess emission report.
- (b) The permittee shall submit notifications and reports to the Executive Secretary as required by R307-170, Continuous Emission Monitoring Systems Program.
- (c) Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107.
- (d) The reports required in paragraphs a, b, and c above are considered prompt notification of permit deviations required in provision I.S.2.c of this permit if all information required by provision I.S.2.c is included in the report. (origin: 40 CFR 60.7(c), and R307-170)

II.B.2.h Condition:

Emissions of CO shall be no greater than 0.085 lbs/MMBtu heat input. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0096021-06]

II.B.2.h.1

Monitoring:

Stack testing shall be performed as specified here:

- (a) Frequency. Emissions shall be tested at least once every 12 months, based on the date of the most recent stack test.
- (b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.
- (c) Sample Point. The emission sample point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1. In addition, Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.
- (d) Methods.
 - (1) 40 CFR 60, Appendix A, Method 10 or 10 b shall be used to determine CO emissions;
 - (2) The emission rate expressed in pounds per million BTU heat input is determined using:
 - (i) the oxygen or carbon dioxide measurements obtained during the source test performed to determine CO emissions.
 - (ii) The dry basis F factor, and
 - (iii) The dry basis emission rate calculation procedure contained in Method 19 (appendix A of 40 CFR 60)
- (e) Production Rate During Testing. The operational rate during all compliance testing shall be no less than 90% of the maximum rate achieved in the previous three (3) years.

II.B.2.h.2

Recordkeeping:

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.2.h.3

Reporting:

The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.i Condition:

The permittee must obtain approval from the Executive Secretary prior to using a new source of alternative fuel as an additive to the coal or coal refuse. To obtain approval from the Executive Secretary, the permittee shall submit a test analysis of the proposed alternative fuel.

The average quantity of alternative fuel from an approved source that can be blended with the coal or coal refuse shall not exceed 10 percent, by weight, of the total fuel burned during a calendar day. The permittee may increase the use of alternative fuels from an approved alternative fuel source from 10 percent up to 25 percent upon approval by the Executive Secretary. Both the approval of a specific source of alternative fuel and the approval of an increase in the amount of approved alternative fuels to be blended with the coal or coal refuse are considered off-permit changes subject to the requirements of R307-415-7d(2).

The blended fuel shall be classified as coal refuse if the blended fuel, as fired, has an ash content of 50 percent by weight or higher, on a dry basis, and has a heating value of 6000 BTU/lb or less, on a dry basis, and if all the fuels in the blend are a byproduct of coal mining or coal cleaning operations. Fuel blends that do not meet all of these requirements are not classified as coal refuse. [Authority granted under 40 CFR 60.41b and R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0096021-06]

II.B.2.i.1 Monitoring:

For each calendar day that alternative fuel is used, the permittee shall record the total weight of coal or coal refuse combusted and the total weight, type and origin of alternative fuel used, including the daily weight percentage of alternative fuel blended with the coal or coal refuse.

Regardless of the type of fuel combusted, a composite sample of the boiler fuel, as fired, shall be analyzed daily for ash content and heating value. Ash content and heating value shall be determined as the arithmetic average of all daily composite fuel analyses for 90 successive boiler operating days. These values shall be determined within 5 days.

II.B.2.i.2 Recordkeeping:

The records required for monitoring shall be maintained as described by Provision S.1 in Section I of this permit.

II.B.2.i.3 Reporting:

Prior to using a new source of alternative fuel or increasing the blending limit for alternative fuel from an approved source, the permittee shall submit a test analysis of the alternative fuel. The analysis report shall include, at a minimum, the ASTM fuel proximate and ultimate analyses as well as the benzene and Poly Aromatic Hydrocarbon (PAH) analyses.

II.B.2.j Condition:

The permittee shall maintain, calibrate, and operate a continuous monitoring system for measuring either oxygen (O₂) or carbon dioxide (CO₂) concentrations in the main boiler stack. The monitoring system shall comply with the requirements of 40 CFR 60, Appendix B, Specification 3. [Authority granted under 40 CFR 60.47b, Subpart Db; condition originated in DAQE-AN0096021-06]

II.B.2.j.1 Monitoring:

Records required for this permit condition will serve as monitoring.

- II.B.2.j.2 **Recordkeeping:**
- The permittee shall record the output of the system along with required calibration and maintenance records. All records shall be maintained as described in Provision I.S.1 of this permit.
- II.B.2.j.3 **Reporting:**
- (a) The permittee shall submit excess emission reports required by 40 CFR 60.7(c) and (d), Reporting requirements. A data assessment report required by Appendix F, Procedure 1, Section 7 to 40 CFR Part 60 shall be submitted with the excess emission report.
- (b) The permittee shall submit notifications and reports to the Executive Secretary as required by R307-170, Continuous Emission Monitoring Systems Program.
- (c) Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107.
- (d) The reports required in paragraphs a, b, and c above are considered prompt notification of permit deviations required in provision I.S.2.c of this permit if all information required by provision I.S.2.c is included in the report. (origin: 40 CFR 60.7(c), and R307-170)
- II.B.2.k **Condition:**
- In case of malfunction or maintenance of the sulfur dioxide control system, the permittee may combust either natural gas or very low sulfur diesel fuel oil (diesel fuel oil that contains no more than 0.5 weight percent of sulfur) while the sulfur dioxide control system is not being operated. [Authority granted under 40 CFR 60.42b (i); condition originated in 40 CFR 60.42b)]
- II.B.2.k.1 **Monitoring:**
- The permittee shall maintain a log of fuel usage describing the time and date of each fuel switch. When diesel fuel oil is combusted during periods of malfunction or maintenance of the sulfur dioxide control systems, the permittee shall maintain the fuel receipt records described in 40 CFR 60.49b to demonstrate that the diesel fuel oil used meets the definition of very low sulfur diesel fuel oil (diesel fuel oil that contains no more than 0.5 weight percent of sulfur).
- II.B.2.k.2 **Recordkeeping:**
- Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.
- II.B.2.k.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.3 **Conditions on Controlled Point Sources (EU #2)**
- II.B.3.a **Condition:**
- Visible emissions shall be no greater than 7 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT] and 40 CFR 60 Subpart Y; condition originated in DAQE-AN0096021-06]

- II.B.3.a.1 **Monitoring:**
- An opacity survey of each affected emission unit shall be performed once each month that the unit operates, by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If any visible emissions are observed, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation.
- II.B.3.a.2 **Recordkeeping:**
- A log of the visual opacity survey(s) shall be maintained in accordance with Provision I.S.1 of this permit. If an opacity determination is indicated, a notation of the determination should be made in the log. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.
- II.B.3.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.4 **Conditions on Fugitive Dust Sources (EU#4)**
- II.B.4.a **Condition:**
- The permittee shall operate in accordance with the most current fugitive dust control plan approved by the Executive Secretary for the control of all dust sources associated with the plant and Ash Landfill. [Authority granted under R307-201-3 and R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0096021-06]
- II.B.4.a.1 **Monitoring:**
- The permittee shall implement the techniques specified in the most recently approved version of the fugitive dust control plan. The plan shall contain sufficient control measures to prevent an increase in PM₁₀ emissions above those modeled for the most recently approved AO. The parameters and assumptions used in the most recent air quality modeling analysis shall not be changed if such change would result in an increase in PM₁₀ emissions. The limitations and conditions in the current fugitive dust control plan shall not be changed without prior approval in accordance with R307-401.
- II.B.4.a.2 **Recordkeeping:**
- Records required by the most recently approved fugitive dust control plan shall be maintained in accordance with the plan and in accordance with Provision I.S.1. of this permit.
- II.B.4.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.4.b **Condition:**

Visible emissions shall be no greater than 20 percent opacity. [Authority granted under R307-201-3 and R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0096021-06]

II.B.4.b.1 **Monitoring:**

In lieu of opacity monitoring, adherence to the most recently approved version of the fugitive dust control plan shall be monitored to demonstrate that appropriate measures are being implemented to control fugitive dust.

II.B.4.b.2 **Recordkeeping:**

Records required by the most recently approved fugitive dust control plan shall be maintained in accordance with the plan and in accordance with Provision I.S.1.of this permit.

II.B.4.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.5 **Conditions on Fuel Oil Storage Tanks (EU#6)**

II.B.5.a **Condition:**

The permittee shall keep readily accessible records showing the dimensions of the 50,000 gallon storage vessel and an analysis showing the capacity of the storage vessel. These records shall be kept for the life of the source. [Authority granted under 40 CFR 60.112b(b); condition originated in 40 CFR 60.116 (b)]

II.B.5.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.5.a.2 **Recordkeeping:**

A copy of the required records shall be maintained in accordance with Provision I.S.1.of this permit and made available to the Executive Secretary upon request.

II.B.5.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.6 **Conditions on Emergency Generator (EU #7)**

II.B.6.a **Condition:**

Visible emission shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-201-3; condition originated in R307-201-3].

- II.B.6.a.1 **Monitoring:**
- Opacity observations of emissions shall be conducted annually when the affected unit is operated, in accordance with 40 CFR 60, Appendix A, Method 9.
- II.B.6.a.2 **Recordkeeping:**
- All data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.
- II.B.6.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.7 **Conditions on Coal Dust Collectors #1 and #2 (EU #2A)**
- II.B.7.a **Condition:**
- Visible emissions shall be no greater than 7 percent opacity from each affected unit. [Authority granted under R307-401-8(1)(a) [BACT] and 40 CFR 60 Subpart Y; condition originated in DAQE-AN0096021-06]
- II.B.7.a.1 **Monitoring:**
- (a). An opacity survey of each affected emission unit shall be performed once each month that the unit operates, by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If any visible emissions are observed, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation.
- (b). Bag leak detectors shall be used as an indicator to provide a reasonable assurance of compliance with the limitation as specified below:
- (1) Measurement Approach: Bag leak detectors are used to detect any signals created by any changes in particulate concentration.
- (2) Indicator Range: The bag leak detectors are calibrated (zeroed) to a clean exhaust and will alarm and trip the coal handling system when any particulates are detected in the exhaust stream. An excursion is defined as when the alarm is initiated. Excursions trigger an inspection and review of the baghouse performance as indicated by other parameters (to determine the baghouse operating deficiencies), corrective action, and a reporting requirement.
- (3) Performance Criteria:
- (A). Data Representativeness: Transducer signal measured by the bag leak detectors shall provide a direct indicator of baghouse performance. Each bag leak detector shall be installed in accordance with manufacturer's specifications.
- (B). QA/QC Practices and Criteria: Each bag leak detector shall be operated, calibrated, and maintained in accordance with manufacturer's specifications.
- (C). Monitoring Frequency: Each bag leak detector shall be operated continuously.
- (D). Data Collection Procedure: Bag leak detectors alarms and trips shall be recorded by plant personnel. Any maintenance activities performed shall be documented.

II.B.7.a.2

Recordkeeping:

In addition to the recordkeeping requirement described in Provision I.S.1 of this permit,

(a) The permittee shall maintain a log of the visual opacity survey(s) in accordance with Provision I.S.1 of this permit. If an opacity determination is indicated, a notation of the determination shall be made in the log. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

(b) The permittee shall maintain a file of the occurrence and duration of any excursion, corrective actions taken, and any other supporting information required to be maintained under 40 CFR 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. (40 CFR 64.9(b))

II.B.7.a.3

Reporting:

In addition to the reporting requirement described in Provision I.S.2 of this permit, the monitoring report shall include, at a minimum, the following information, as applicable:

(a) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken. (40 CFR 64.9(a)(2)(i))

(b) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable). (40 CFR 64.9(a)(2)(ii))

II.B.8

Conditions on Uncontrolled Point Sources (EU#3)

II.B.8.a

Condition:

Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT] and 40 CFR 60 Subpart Y; condition originated in DAQE-AN0096021-06]

II.B.8.a.1

Monitoring:

A visual opacity survey of each affected emission unit shall be performed on a monthly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than condensed water vapor are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.8.a.2

Recordkeeping:

A log of the visual opacity survey(s) shall be maintained in accordance with Provision I.S.1 of this permit. If an opacity determination is indicated, a notation of the determination should be made in the log. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.8.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.C

Emissions Trading

(R307-415-6a(10))

Not applicable to this source.

II.D

Alternative Operating Scenarios.

(R307-415-6a(9))

Not applicable to this source.

II.E

Source-specific Definitions.

Not applicable to this source.

SECTION III: PERMIT SHIELD

III.A

A permit shield was not granted for any specific requirements.

SECTION IV: ACID RAIN PROVISIONS

IV.A **This source is not subject to Title IV. This section is not applicable.**

REVIEWER COMMENTS

This operating permit incorporates all applicable requirements contained in the following documents:

Incorporates AO DAQE-AN0096021-06 dated November 9, 2009

1. Comment on an item originating in this permit regarding Circulating Fluidized Bed Combustion Boiler(EU#1)

Both the ash content and the heating value shall be calculated on a rolling 90 day average with a 5-day data lag: A 5-day lag has been incorporated into the rolling 90 day averaging process to account for turn around time associated with offsite coal analysis. The SO₂ reduction level will continue to be established on a daily basis using the most current data available to the permittee at that time. [Last updated October 22, 2007]

2. Comment on an item originating in this permit regarding Circulating Fluidized Bed Combustion Boiler(EU#1)

CAM Plan: This emission unit is subject to CAM in the renewal permit. The baghouse is the pollution control equipment for TSP. CAM correlation stack testing for TSP emissions was performed on Boiler#1 during December 2006. The correlation test results indicated a correlation of opacities to TSP emission rates. Therefore, opacity is selected as the performance indicator of the baghouse to provide a reasonable assurance of compliance with the TSP emission limitation for CAM.

The correlation test results demonstrated that an opacity of 3.2% corresponds to the stack TSP emission limit. The measurement errors associated with low-level opacity measuring were evaluated and uncertainties contributed by the instrument, particle size, particle shape, and particle shape were calculated. The combined uncertainty was estimated to be 3.2% opacity. The opacity corresponding to the stack TSP emission limit was justified to 6.4% after adding the 3.2% of combined uncertainty. The 6.0% of opacity (8-hour fixed block average) is chosen as the excursion level to provide a reasonable assurance of compliance margin.

In the future, the permittee is required to develop a new excursion level during each performance test (the next one is due in 2008) using the modified method under 60.48a(o)(2)(iii) and (iv) (NSPS Subpart Da). The new value of the opacity excursion level shall be determined by averaging all of the 6-minute average opacity values from the COMS measurements recorded during each of the test run intervals conducted for the performance test, and then adding 2.5 percent opacity to the calculated average opacity value for all of the test runs as per 60.48a(o)(2)(iii). If the new value of the opacity excursion level for all of the test runs is less than 5.0 percent, then the new opacity excursion level shall be set at 5.0 percent (8-hour fixed block average). If the new value of the opacity excursion level for all of the test runs is greater than 6.0 percent, then the new opacity excursion level shall be set at 6.0 percent (8-hour fixed block average).

The calculated post control potential emission for TSP is 92.5 tons per year for this unit. The 8-hour fixed block average opacity will provide 3 data points everyday which will meet the monitoring frequency requirement under 40 CFR 64 for non large PSEUs (pollutant specific emissions unit). The stack testing in conjunction with the opacity monitoring in CAM meets the monitoring requirements in the renewal permit. [Last updated October 22, 2007]

3. Comment on an item originating in DAQE-AN0096020-06, condition 12 regarding Circulating Fluidized Bed Combustion Boiler(EU#1)

The permittee may increase the average quantity of alternative fuels used up to 25 percent by weight upon approval by the Executive Secretary: Approval of increased alternative fuel blending limits will be contingent upon the determination that a higher percent of alternative fuels in the blend will not result in increased emissions of air pollutants. Approval is only valid for a specific batch of alternative fuels and must be re-established for every new source of alternative fuels. Consequently, these case-by-case determinations will be conducted as off-permit actions not requiring modifications to the operating permit. [Last updated October 22, 2007]

4. Comment on an item originating in 40 CFR 60, Subpart Db regarding Circulating Fluidized Bed Combustion Boiler(EU#1)

The permittee shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. This applicable requirement is subsumed by a more stringent opacity limit of 10 percent, except for one 6-minute period per hour of not more than 27 percent opacity which was established through the application of BACT. [Last updated October 22, 2007]

5. Comment on an item originating in 40 CFR 60, Subpart Y regarding Circulating Fluidized Bed Combustion Boiler(EU#1)

The permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater: This applicable requirement is subsumed by more stringent opacity limits of 7% for controlled emission points and 10 % for uncontrolled emission points which were established through the application of BACT. [Last updated October 22, 2007]

6. Comment on an item originating in 40 CFR 60, Subpart Db regarding Circulating Fluidized Bed Combustion Boiler(EU#1)

The permittee shall not emit any gases that contain particulate matter in excess of 0.05 lb TSP/MMBtu heat input: This applicable requirement is subsumed by a more stringent emission limit of 0.025 lb TSP/ MMBTU which was established through the application of BACT. [Last updated October 22, 2007]

7. Comment on an item originating in this permit regarding Circulating Fluidized Bed Combustion Boiler(EU#1)

Utah DAQ has determined that the 0.025lb particulates per MMBtu limit was set for TSP and not for PM₁₀ in the letter DAQE-GN0096012A-02, dated December 3, 2002. This decision was based on the fact that this limit was set before the PM₁₀ standards were adopted by Utah DAQ. Therefore, the limit of TSP is used in this permit. [Last updated October 22, 2007]

8. Comment on an item originating in this permit regarding Coal Dust Collectors #1 and #2 (EU#2A)

CAM Plan: This emission unit is subject to CAM in the renewal permit. The baghouse is the pollution control equipment for TSP. Bag leak detectors are selected as the performance indicator of the baghouse to provide a reasonable assurance of compliance with the opacity limitation for CAM. Bag leak detectors have a continuous digital signal that corresponds directly to the relative particulate emission level. The bag leak detectors are calibrated (zeroed) to a clean exhaust stream and will alarm and trip the coal handling system when any particulates are detected in the exhaust stream. [Last updated October 22, 2007]

Final Permit Review Checklist

This checklist is to be used to review all final operating permits prior to signing.
The completed checklist is to be submitted to the Operating Permit section manager.

Source name: Sunnyside Cogeneration Associates: Sunnyside Cogeneration Facility

Permit ID:
700030002

OPP0100960004

- _____ 1. Cover page only is on letterhead paper
- _____ 2. Permit ID is valid (not missing, not "1", ends in "00x" where "x" is the revision number)
- _____ 3. Permit date and revision date (if applicable) are correct **Issue / revision date:** _____
- _____ 4. Source name, address and SIC are correct
- _____ 5. Abstract includes brief description of process and states why the source is subject to Part 70 (NSPS equipment, pollutants for which the source is major, etc.)
- _____ 6. Operating permit history shows correct action, date and description of action
- _____ 7. Table of contents is accurate
- _____ 8. Permit footer information matches cover page
- _____ 9. Permit renewal date is correct **Renewal Date:** _____
- _____ 10. Annual compliance certification date is correct **First certification due date:** _____
- _____ 11. Definition of "prompt" for deviation reporting is correct **Prompt means** _____ days
- _____ 12. All required emission units are included, and grandfathered units identified
- _____ 13. Permit text is complete and legible, and superscripts/subscripts are correct
- _____ 14. List of supporting approval orders and documents is included and is complete and accurate
- _____ 15. If title IV applies, acid rain portion of permit is included
- _____ 16. Reviewer comments are included as required to show basis for monitoring, etc.
- _____ 17. Permit has been spell-checked and read for grammatical errors
- _____ 18. OPP peer review completed
- _____ 19. NSR review completed (N/A if no NSR review needed)
- _____ 20. Compliance review completed
- _____ 21. Draft Permit was sent to public comment (y / n) **Public review start date:** _____
- _____ 22. Proposed Permit submitted for EPA review (y / n) **EPA review start date:** _____
- _____ 23. Other comments on this permit:

This permit has been prepared in accordance with current administrative requirements as provided in R307-415 and with current OPP policy and guidance.

Permit writer signature: _____

Date: _____

Section manager signature: _____

Date: _____

Operating Permit Source File Checklist

- _____ 1. **Receipt letter (if source-initiated permit action) or
Source notification (if DAQ initiated permit action)**
- _____ 2. **EPA / Affected state(s) notice of modification (minor modification only)**
- _____ 3. **Completeness determination (initial app, significant mod, renewal only)**
 - _____ A) Checklist
 - _____ B) “Complete” notification
 - _____ C) “Incomplete” notification (if any)
- _____ 4. **Public comment paperwork (initial app, significant mod, renewal only)**
 - _____ A) Draft permit checklist
 - _____ B) DRAFT permit
 - _____ C) Notice to paper(s)
 - _____ D) Receipt from paper(s) (i.e., affidavit of publication)
 - _____ E) Public hearing information (if any)
 - _____ F) Comments received (if any)
 - _____ G) Responses to comments (if any)
- _____ 5. **Affected state notifications (initial app, significant mod, renewal only)**
- _____ 6. **EPA comment paperwork (initial app, significant mod, renewal only)**
 - _____ A) Submittal to EPA
 - _____ i) Letter
 - _____ ii) PROPOSED permit
 - _____ iii) Other info sent to EPA that is not already in file
 - _____ B) Receipt of delivery to EPA, stapled to submittal letter
 - _____ C) EPA comments (if any)
 - _____ D) Response to EPA comments (if any)
- _____ 7. **Final permits**
 - _____ A) Final permit checklist completed
 - _____ B) FINAL permit with letter of transmittal
 - _____ C) Reviewer comments
 - _____ D) Initial Permit Application
 - _____ E) Update letters/packages (if any)
 - _____ F) Other working file contents (RO designations, etc)
 - _____ G) Disk with telecommute data for source and WP file of permit
 - _____ H) Copy of letter of transmittal to EPA